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ATTORNEY'S DOCKET NO.: E00295.70108

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Yao Wang et al.
Serial No: 09/533,025
Filed: March 22, 2000
For: METHOD AND APPARATUS FOR PROVIDING HOST RESOURCES FOR
AN ELECTRONIC COMMERCE SITE

Examiner: Timothy M. Bonura
Art Unit: 2184

Confirmation No.: 8409

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document and the listed enclosures are being placed in the United States mail with first-class postage attached, addressed to Box Non-Fee Amendment, Commissioner for Patents, Washington, D.C. 20231 on February 10, 2003.


Robert A. Skrivanek, Jr.

Box Non-Fee Amendment
Commissioner for Patents
Washington, D.C. 20231

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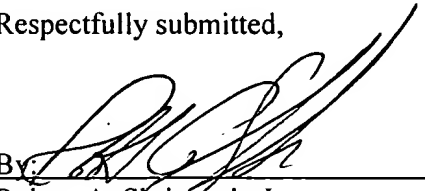
Transmitted herewith for filing are the following documents:

[X] Response

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (617)720-3500, Boston, Massachusetts.

No fee is associated with the filing of this response. Since February 8, 2003 fell on a Saturday, this response is considered timely filed. Please charge any deficiency in the enclosed fee to the account of the undersigned, Deposit Account No. 23/2825. A duplicate copy of this sheet is enclosed.

Respectfully submitted,


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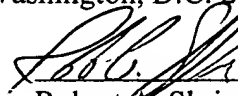
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Robert A. Skrivanek, Jr.

Box Non-Fee Amendment
Commissioner for Patents
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Sir:

RESPONSE

In response to the Office Action mailed November 8, 2002, reconsideration is respectfully requested in view of the following remarks.

Claims 1-51 are pending in this application. Claims 1-3, 11, 25, 26, 27, 29, 30, and 44 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,834,856 to Tavallaei, et al. (hereinafter "Tavallaei"). Claims 4, 5, 7, 10, 12, 18, 20, 23, 28, 31, 32, 36, 37, 41, 42, 45, 46, 48, and 50 stand rejected under 35 U.S.C. §103(a) as being obvious over Tavallaei in combination with U.S. Patent No. 6,360,331 to Vert, et al. (hereinafter "Vert"). Claims 8, 9, 14-16, 19, 21, 33-35, 38-40, 43, 47, 49, and 51 were objected to as being dependent upon a rejected base claim, but were indicated to be in allowable condition if rewritten in

independent form to include all of the limitations of their respective base claim and any intervening claims.

Preliminarily, Applicants note that although claim 17 was indicated as being rejected in the Office Action Summary, there was no specific rejection of this claim in the body of the Office Action. Further, claim 17 was specifically indicated to be allowable in paragraph 38 of the Office Action. For this reason, Applicants treat claim 17 as though it has been objected to, and not rejected. Further, although claim 24 is also identified as being rejected in the Office Action Summary, there is no specific rejection applied to this claim.

1. Claim Rejections Under 35 U.S.C. §112, First Paragraph

In paragraphs 32 and 33 of the Office Action, claims 6 and 13 were rejected under 35 U.S.C. §112, first paragraph, as lacking enablement in the specification. Specifically, the Office Action asserted that these claims both describe an act of “replicating” in which no copying is performed, but the Examiner did not understand “how a replicating function could be performed without the act of copying.” This rejection is respectfully traversed.

Preliminarily, Applicants point out that claims 6 and 13 each recites that the act of replicating the data is performed without the first host computer copying the data from the at least one first storage device and without the second host computer copying the data to the at least one second storage device. These claims do not require, as asserted by the Examiner, that the data not be copied at all, but rather, that the data not be copied from the at least one first storage device by the first host computer, or copied to the at least one second storage device by the second host computer. Furthermore, such an act of replicating data without the first host computer copying the data from the at least one first storage device and without the second host computer copying the data to the at least one second storage device is described in various portions of Applicants’ specification in a manner that is clearly enabling to one of ordinary skill in the art.

For example, at page 15, lines 21-29, Applicants describe one way in which data may be replicated in the manner recited in each of claims 6 and 13, by modifying the assignment of storage devices used by the primary host computer so that those storage devices are then accessible to the secondary host computer. Such a reassignment of storage devices involves no

actual copying of data, and is described in Applicants' specification in a manner that is clearly enabling to those of ordinary skill in the art. Further, as described therein, this reassignment may be performed by the controller 160, which may be a device that is distinct from the first and second host computers, although the present invention is not so limited.

Other examples of replicating data without the first host computer copying the data from the at least one first storage device, and without the second host computer copying the data to the at least one second storage device are also described in Applicants' specification. For example, at page 15, line 30 through page 16, line 13, Applicants describe that the controller 160 may utilize a backup copy of data used by a primary host computer for use on a secondary host computer. Moreover, at page 17, lines 1-15, Applicants describe yet another way in which data can be so replicated; namely, by splitting off a mirrored copy of data used by a primary host computer for use with a secondary host computer. Each of the above-noted examples of replicating data without the first host computer copying the data from the at least one first storage device and without the second host computer copying the data to the at least one second storage device are fully described in Applicants' specification in such a way as to enable one skilled in the art to make and/or use the claimed invention as required by 35 U.S.C. §112, first paragraph. Accordingly, Applicants respectfully request that the rejection of claims 6 and 13 under 35 U.S.C. §112, first paragraph, be withdrawn.

2. Rejections Under 35 U.S.C. §102

As noted above, claims 1-3, 11, 25, 26, 27, 29, 30, and 44 stand rejected under 35 U.S.C. §102(b) as being anticipated by Tavallaei. This rejection is respectfully traversed.

Tavallaei is directed to the hot-swapping of components within a single host computer, and discloses nothing about configuring one host computer to host at least a portion of an electronic commerce site of another host computer. Further, although the Office Action asserts that at column 4, lines 35-50, 65-68, and column 5, lines 1-3, Tavaellaei discloses "automatically configuring a second host computer to host at least a portion of the information that was held by the primary server," it clearly does not. Specifically, when read in context with the disclosure of Tavallaei, the cited portion of Tavallaei refers to the failover of individual components within a computer system, and not to the failover of one host computer to another.

Tavallaei is directed to a computer system having primary and redundant devices, and more particularly to a computer system that can actively check the health of dormant redundant devices by temporarily turning the redundant devices on and checking if they would be operational if the primary devices failed. (Col. 1, lines 8-14). As described in Tavallaei, the types of devices that may controlled by the computer system of Tavallaei include fan assemblies, power supplies, power modules, I/O boards, microprocessor boards, disk controllers, bus controllers, and microprocessors. (Col. 3, lines 61-66).

In the embodiment of Figure 1, Tavallaei discloses an exemplary computer server system 100 that includes an operating system 102, a microprocessor board 104, and a fan controller 106 that monitors multiple sets of primary devices 108 and redundant devices 110. (Col. 5, lines 16-29.) In the described embodiment of Fig. 1, the fan controller 106 monitors two sets of primary and redundant fans 108, 110. (Col. 5, lines 29-34.) At time intervals set by a user in the operating system 102, the fan controller is instructed by the operating system to check the redundant fan 110 to make sure that the redundant fan would be operational if the primary fan 108 should fail, and if the operating system 102 is informed by the fan controller 106 that the redundant fan is not operational, the user is informed by the operating system which redundant fan is non-operational so that the fan may be replaced. (Col. 5, lines 41-65.)

In another embodiment illustrated in Fig. 3, a computer system 300 is provided with the ability to determine whether one of a plurality of voltage regulators 304 is operational and to configure a secondary voltage regulator 306 to be used instead. (Col. 6, line 13 – col. 7, line 5.) Although the computer system 300 includes multiple microprocessors 302A-D, each of these microprocessors reside in a single host computer. (Col. 6, lines 13-17 and Fig. 3.)

A third and final embodiment is disclosed in Fig. 5, wherein the computer system 500 includes a plurality of processing boards 502A, 502B, each of which may include at least one processor. (Col. 8, lines 24-38.) Each of the processing board 502A, 502B may also include a plurality of power modules 504A and 504B which may be redundant devices as described in the prior embodiments. (Col. 8, lines 38-44.) Moreover, this computer system may also include other hot-swappable components, such as serial and parallel port connections, etc. (Col. 9, lines 1-17.)

In each of the various embodiments of Tavallaei, a single host computer is disclosed in which a variety of different components, such as fan assemblies, power supplies, power modules, I/O boards, microprocessor boards, disk controllers, bus controllers, and microprocessors may be hot-swappable. (Col. 3, lines 61-66). Nowhere does Tavallaei disclose, teach, or suggest that the ability to hot-swap individual component devices may be use to automatically configure one host computer to host at least a portion of an electronic commerce site of another host computer. Indeed, even in the portions of Tavallaei cited in the Office Action, Tavallaei consistently refers to failures of devices and subsystems within a computer system (see col. 4, lines 35-55), and says nothing about failing over to a “redundant system” as asserted in paragraph 2 of the Office Action. As such, the rejection of claims 1-3, 11, 25, 26, 27, 29, 30, and 44 under 35 U.S.C. §102(b) as being anticipated by Tavallaei should be withdrawn.

A. Claim 1 Patentably Distinguishes Over Tavallaei

Claim 1 is directed to a method of performing electronic commerce. The method includes acts of hosting an electronic commerce site on a first host computer, detecting a change in operation of the electronic commerce site; and automatically configuring a second host computer to host at least a portion of the electronic commerce site on the second host computer in response to the act of detecting.

Tavallaei fails to disclose, teach, or suggest Applicants' invention as recited in claim 1. Specifically, although Tavallaei discloses the hot-swapping of individual components in a computer system, Tavallaei fails to disclose, teach, or suggest acts of detecting a change in operation of an electronic commerce site hosted by a first host computer, and automatically configuring a second host computer to host at least a portion of the electronic commerce site on the second host computer in response to the act of detecting. Indeed, in Tavallaei, no other host computers, other than the one in which an individual component may fail, are even addressed. Moreover, even in the embodiment depicted in Fig. 5 of Tavallaei, the computer system is incapable of detecting failure the failure of one of the processor boards 502A, 502B and failing over to the other. (See col. 9, lines 1-66 in which a variety of hot-swappable components are addressed, but none of which include the processors boards 502A, 502B described at col. 8, lines 45-55, which are connected to the system I/O board 508 by a different type of bus interface.)

Because Tavallaei fails to disclose all of the limitations recited in claim 1, claim 1 patentably distinguishes over Tavallaei. Accordingly, the rejection of claim 1 under 35 U.S.C. §102(b) as being anticipated by Tavallaei should be withdrawn.

Claims 2, 3, 11, 25, and 26 depend either directly or indirectly from claim 1 and patentably distinguish over Tavallaei for at least the same reasons.

B. Claim 27 Patentably Distinguishes Over Tavallaei

Claim 27 is directed to a computer system. The computer system includes a first host computer that hosts an electronic commerce site, a second host computer, and a controller that is operatively coupled to the first host computer and the second host computer. The controller automatically configures the second host computer to host at least a portion of the electronic commerce site on the second host computer in response to a change in operation of the electronic commerce site.

In the rejection of claim 27, the Office Action cited column 4, lines 23-34 of Tavallaei as disclosing a first host computer that hosts an electronic commerce site, column 3 lines 50-61 as disclosing a second host computer, and column 3, lines 19-26, 50-61, and column 4, lines 35-42 as disclosing a controller as recited in claim 27. These assertions are clearly refuted by even a cursory reading of Tavallaei.

Specifically, in each of the above noted passages reference in the Office Action, Tavallaei refers to redundant devices within a computer system, not to redundant computer systems as asserted. Indeed, in Tavallaei, no other host computers, other than the one in which an individual component may fail, are even addressed. Moreover, even in the embodiment depicted in Fig. 5 of Tavallaei, the computer system is incapable of detecting failure the failure of one of the processor boards and failing over to the other.

Accordingly, because Tavallaei discloses only the failure of individual components within a host computer, and fails to disclose all of the limitations recited in claim 27, claim 27 patentably distinguishes over Tavallaei. Accordingly, the rejection of claim 27 under 35 U.S.C. §102(b) over Tavallaei should be withdrawn.

Claims 29, 30, and 44 depend from claim 27 and patentably distinguish over Tavallaei for at least the same reasons.

3. Rejections Under 35 U.S.C. §103(a)

Each of claims 4, 5, 7, 10, 12, 18, 20, 23, 28, 31, 32, 36, 37, 41, and 42 was rejected under 35 U.S.C. §103(a) over the combination of Tavallaei and Vert. Without acceding to the propriety of the combination of Tavallaei and Vert, and even if Vert does disclose an act of configuring a host computer by replicating data from a storage device to a second host computer, the asserted combination of Tavallaei and Vert fails to teach all the features recited in these claims.

A. Claims 4, 5, 6, 7, 10, 12, 13, 18, 20, and 23

Tavallaei is directed to component failure on a single host computer; Tavallaei says nothing about “the ability to detect an error, failure, or malfunction on the first host site and upon detecting this problem to configure a second host site” as asserted in the rejection of claims 4, 5, 7, and 10 in paragraph 13 of the Office Action, or as asserted in the rejection of claims 12, 18, 20, and 23 in paragraph 17 of the Office Action. Nowhere does Tavallaei even mention multiple host computers. Accordingly, each of claims 4, 5, 6, 10, 12, 13, 18, 20, and 23 patentably distinguishes over the asserted combination of Tavallaei and Vert.

B. Claims 28, 31, 32, 36, 37, 41, and 42

The asserted combination of Tavallaei and Vert similarly fails to disclose, teach, or suggest a computer system as recited in claims 28, 31, 32, 36, 37, 41, and 42. Although the Office Action asserts that Tavallaei “teaches a computer system with a first computer host serving an electronic commerce site, a second computer, and a controller for handling failure and malfunctions in the first computer,” it does not. Rather, Tavallaei teaches detecting failure and malfunctions of specific individual components of a single computer system. No other computers other than the one featuring hot-swappable components is even addressed. Accordingly, claims 28, 31, 32, 36, 37, 41, and 42 patentably distinguish over the asserted combination of Tavallaei and Vert.

C. Claim 45

Claim 45 is directed to a storage system for use with a first host computer and a second host computer. The storage system includes at least one first storage device to store data of the first host computer corresponding to an electronic commerce site hosted by the first host computer, and a controller that is coupled to the at least one first storage device. The controller, when operatively coupled to the first host computer and the second host computer, automatically configures the second host computer to use at least a portion of the data of the first host computer that corresponds to the electronic commerce site to host a portion of the electronic commerce site on the second host computer in response to a change in operation of the electronic commerce site.

In paragraph 28, the Office Action again cites column 4, lines 23-43 of Tavallaei as being pertinent to Applicants' claimed invention, this time with respect to claim 45. The Office Action asserts that column 4, lines 23-43 of Tavallaei discloses a storage system wherein "a storage device is used to store date [sic] from the first host computer corresponding to an electronic commerce site hosted by the first computer and a controller coupled to the first storage device," and that lines 39-40 disclose a controller, referred to as a "switching mechanism." While conceding that Tavallaei "does not teach that the storage system controller can couple the first host computer and the second host computer," or that Tavallaei can "automatically configure the second computer to host at least a portion of an electronic commerce site as a response to a change in operation of the first host computer," the Office Action asserts that Vert teaches these missing limitations. The Office Action then asserts that it would be obvious to one of ordinary skill in the art to incorporate the controller as disclosed by Vert into the storage system as disclosed in Tavallaei because Tavallaei teaches at column 3, lines 1-10 that "having a controller that can successfully and completely maintain functionality of an electronic commerce site is important for production of the company." This rejection is respectfully traversed.

Nowhere in column 4 does Tavallaei even mention storage devices, let alone a storage for use with first and second host computers as recited in claim 45. As noted above, Tavallaei is directed to the failure of individual components within a computer system. Moreover, although Tavallaei discloses that prior art systems such as those described at column 4, lines 23-43

included “redundant devices that would be switched on when and if the primary devices fail,” nothing more is said about such switching devices.

Further, although the Office Action asserts that Tavallaei teaches that “having a controller that can successfully and completely maintain functionality of an electronic commerce site is important for production of the company,” it does not. The cited passage of Tavallaei simply notes that “[w]hen access to the files stored at the computer server is essential to perform a particular service or function, it is imperative that the computer services be online and available so that the files stored thereon can be accessed;” it says nothing about how such functionality is to be implemented, and no mention is made of any controller. Accordingly, because Tavallaei does not disclose, teach, or suggest any of the limitations of claim 45 that are asserted in the Office Action, claim 45 patentably distinguishes over the asserted combination of Tavallaei and Vert. Therefore, the rejection of claim 45 under 35 U.S.C. §103(a) over the combination of Tavallaei and Vert should be withdrawn.

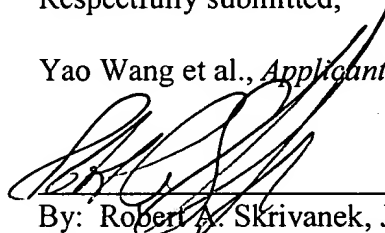
Claims 46, 48, and 50 depend from claim 45 and are patentable for at least the same reasons.

CONCLUSION

In view of the foregoing remarks, this application should now be in condition to grant a notice of allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the number listed below. If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check, please charge any deficiency to deposit account No. 23/2825.

Respectfully submitted,

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